

REMARKS

Reconsideration of the above-identified patent application in view of the amendment above and the remarks below is respectfully requested.

No claims have been canceled in this paper. Claims 1-13 have been amended in this paper. New claims 17-21 have been added in this paper. Therefore, claims 1-21 are pending. Of these claims, claims 14-16 have been withdrawn from further consideration as being drawn to a nonelected invention. Accordingly, claims 1-13 and 17-21 are under active consideration.

The specification stands objected to for the following reasons:

The title is non-descriptive, the body lacks the various headings, and the specification may not refer to the claims. In general it is evident that the written disclosure is a translation from a foreign language and includes many informalities inherent therewith.

In response to the above, Applicant has amended the specification to address the various matters specified above. Accordingly, it is respectfully submitted that the foregoing objection to the specification should be withdrawn.

Claims 1-13 stand rejected under 35 U.S.C. 112, second paragraph, “as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” In support of the rejection, the Patent Office states the following:

In claim 1, lines 4-5, it is not unclear [sic: not clear] how there would be splines if the grooves that form the splines extend a complete circle. Furthermore, characterizing the members 10a-10c and 20a-20c as splines and spline profiles does not appear to be accurate since the invention intends there to be relative movement between the “splines”. In claims 4, 9, 10 and 12, the range within a range in a single claim is indefinite. Regarding claim 6 and 7, there is no antecedent for the clamping. In claims 5, 7 and 8, it is unclear how a surface that is shown [as] curved can having a linear gradient and then regarding claim 8, it is unclear how the linear gradient can

be generated by a circular arc. The claims were examined as best understood.

Applicant respectfully traverses the foregoing rejection. Claims 1-13 have been amended herein so that all language in the claims referring to splines and to spline profiles has been replaced with language reciting grooves and cams, respectively. Claim 1 has also been amended to clarify that the grooves cumulatively extend an angular range of 360 degrees. Claims 4, 9, 10 and 12 have been amended to remove language reciting a range within a range. Claims 6 and 7 have been amended to clarify that the clamping in question is the clamping of the straining ring to the nut body, said clamping being antecedently referred to in claim 1. In view of the above, the claims are now submitted to be definite.

Accordingly, for at least the above reasons, the foregoing rejection should be withdrawn.

Claims 1-3, 6-8 and 13 stand rejected under 35 U.S.C. 102(b) “as being anticipated by Stencel (US 4,260,005).” In support of the rejection, the Patent Office states the following:

As best seen in Figs. 4 and 6, Stencel discloses a securing nut comprising a straining ring (34) having three grooves (38) in the form of “splines” each extending 120 degrees to total an entire 360 degrees and, a threaded (at 18) nut body (10) having a neck (52) having three cams (28) in the form of curved “spline profiles” which extend less than 360 degrees which are clamped to form a “linear gradient”

Applicant respectfully traverses the foregoing rejection. Claim 1, from which claims 2-3, 6-8 and 13 depend, has been amended herein to more clearly define the invention and now recites “[a] securing nut comprising a nut body and a straining ring rotationally arranged on the nut body, the nut body having a neck, the straining ring being shoved onto the neck of the nut body and secured thereto by clamping, an inner surface of the straining ring having at least two grooves that cumulatively extend across an entire angular range of 360°, an outer surface of the neck having a

plurality of cams corresponding in number to the number of grooves, each cam being associated with a groove and extending across an angular range of less than 60°.”

Stencel does not anticipate (or even render obvious) claim 1 for at least the reason that Stencel does not teach (or even suggest) a securing nut comprising the combination of (i) a nut body and (ii) a straining ring rotationally arranged on a neck of the nut body, the straining ring being shoved onto the neck of the nut body and secured thereto by clamping. Instead, Stencel is limited in its teachings to a nut (or locking collar) 10, the Stencel nut 10 lacking the claimed straining ring. The structure in Figs. 4 and 6 of Stencel that is characterized by the Patent Office as straining ring 34 does not correspond to the claimed straining ring and, in fact, is not even a straining ring at all. Instead, element 34 of Stencel is merely a tool (i.e., a driver having a socket 36 with three flat sides 38) that is used to fasten Stencel nut 10 to Stencel bolt (or shear pin) 12 by applying a very strong tightening torque between nut 10 and pin 12. Stencel tool 34 does not form a part of the securing nut.

By contrast, as noted above, the claimed securing nut includes a nut body and a straining ring, the straining ring being shoved onto the nut body and secured thereto by clamping. The straining ring has at least two grooves, and an outer surface of the nut body has a plurality of cams corresponding in number to the number of grooves, each cam being associated with a groove and being used to secure the straining ring to the nut body. As noted on page 4 of the present specification, one advantage of the present invention is that the mounting of the nut on a bolt or the like is totally independent of the clamping of the straining ring to the nut body. In other words, the nut is first fastened onto a bolt in a certain position and/or adjusted with a certain torque value and then - after this first step - the nut is fixed to the bolt by the straining ring. Consequently, the

securing nut of the present invention is capable of being fastened onto a bolt by the straining ring and thereafter loosened therefrom a number of times without affecting the integrity of the various components. This is in contrast with existing nuts, such as the Stencel nut, which are intended to be tightened only one time.

Accordingly, for at least the above reasons, the foregoing rejection should be withdrawn.

Claims 4-6 and 10-12 stand rejected under 35 U.S.C. 103(a) “as being unpatentable over Stencel as applied to claims 1 and 2 above, and further in view of Williamson (US 4,408,936).” In support of the rejection, the Patent Office states the following:

Stencel presumably does not disclose the “linear gradient” of the splines. As seen in Figs. 8 and 9, Williamson discloses splines (63) having a “linear gradient”. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to form the splines of Stencel as having a linear gradient as disclosed in Williamson to improve the ability to clamp the spline profiles. The linear gradient forms a more gradual incline to reduce the effort to clamp the spline profiles. The claimed ranges/preferred dimensions would have been recognized depending upon the particular use of the invention. It is well known to vary the size of the fasteners depending upon the particular application.

Applicant respectfully traverses the foregoing rejection. Claims 4-6 and 10-12 depend from claim 1. As noted above, claim 1 is patentable over Stencel. Williamson, which merely relates to a torque-limited threaded locking fastener and does not disclose the claimed combination of a nut body and a straining ring, fails to cure all of the deficiencies of Stencel with respect to claim 1. Therefore, based at least on their respective dependencies from claim 1, claims 4-6 and 10-12 are patentable over Stencel in view of Williamson.

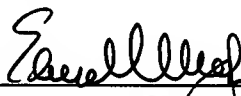
Accordingly, for at least the above reasons, the foregoing rejection should be withdrawn.

In conclusion, it is respectfully submitted that the present application is now in condition for allowance. Prompt and favorable action is earnestly solicited.

If there are any fees due in connection with the filing of this paper that are not accounted for, the Examiner is authorized to charge the fees to our Deposit Account No. 11-1755. If a fee is required for an extension of time under 37 C.F.R. 1.136 that is not accounted for already, such an extension of time is requested and the fee should also be charged to our Deposit Account.

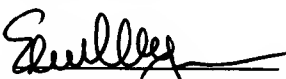
Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 19, 2004.


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